भारतीय मानक
Indian Standard

IS 17618 (Part 3) : 2021

तसर कच्चा रेशम — ग्रेडिंग और परीक्षण पद्धतियाँ

भाग 3 लपेटन परीक्षण

Tasar Raw Silk — Grading and Methods of Tests

Part 3 Winding Test

ICS 59.060.10

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September 2021 **Price Group 3**

Silk and Silk Products Sectional Committee, TXD 28

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Silk and Silk Products Sectional Committee had been approved by the Textile Division Council.

Grading of tasar raw silk is very important from the viewpoint of quality of the tasar silk and the subsequent products made from it. This will also help the reelers/producers to get the right value of their product and remove malpractices in the tasar silk trade. The formulation of standard for tasar silk grading will benefit the industry in long run. For mulberry raw silk, BIS has already published IS 15090 (Parts 1 to 11) 'Raw silk — Grading and methods of tests'.

This Indian Standard is published in seven parts. The other parts in the series are:

Part 1 Grading/classification of tasar silk.
Part 2 Visual and tactual examination.
Part 4 Size test.
Part 5 Tenacity and elongation.
Part 6 Cohesion test.
Part 7 Standard images of defects of tasar silk.

The Composition of the Committee responsible for the formulation of this standard is given in Annex B.

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'.

Indian Standard

TASAR RAW SILK — GRADING AND METHODS OF TESTS

PART 3 WINDING TEST

1 SCOPE

This standard (Part 3) prescribes method of test to determine the number of times the tasar raw silk will break during a certain period of winding it on the bobbins off the skeins and the feasibility of skeins for the winding operation.

2 REFERENCES

The standards listed below contain provisions, which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards.

IS No.	*Title*
17618 (Part 1) : 2021	Tasar raw silk — Grading and test methods: Part 1 Grading/classification
SP 45 : 1988	Handbook on glossary of textile terms
232 : 2020	Glossary of textile terms — Natural fibres (*third revision*)

3 TERMINOLOGY

For the purpose of this standard the definitions given in IS 17618 (Part 1), SP 45 and IS 232 shall apply.

4 TEST SAMPLE

The sample for the test shall be 5 skeins.

5 ATMOSPHERIC CONDITONS FOR CONDUCTING THE TEST

As far as possible the test shall be carried out in a standard atmosphere i.e. at 65 ± 2 percent relative humidity and 27 ± 2 °C temperature.

6 CONDITIONING OF TEST SAMPLE

Prior to test, the test sample shall be conditioned for a duration of 24 h at standard atmosphere that is, at 65 ± 2 percent relative humidity and 27 ± 2 °C temperature.

7 APPARATUS

7.1 Winding Frame

The winding frame shall be equipped to drive the double flanged bobbins from both ends and shall be capable of winding at a uniform speed of 30 m/min. (*see* Fig 1 and Fig 2).

Drive:	Bobbins mounted on frictionless ball bearing & driven by a circular wheel.
Swift:	Swift with variable circumference adjustable mechanism to accommodate skeins with 150 ± 5 cm circumference.
Bobbin:	Double flanged bobbin which is well balanced and has smooth surface so as to give regular tension and uniform angular speed. Dimensions – Dia of flange 60 mm, Dia of barrel – 38 mm, Length between flanges – 85 mm, weight-approximately 105 g.

8 PROCEDURE

Out of 5 skeins, two skeins shall be wound from inner surface and the remaining 3 shall be wound from outer surface of the skeins. The sample skeins shall be put on the swifts with care to ensure that each skein is in good condition. The break counting period shall be for a duration of 30 min with a provision of preliminary winding of 5 min. for the skeins with ends drawn from inner side of skeins. The breaks occurring during the specified period shall be counted and recorded.

9 RECORD

The results of the winding test shall be recorded in the proforma for record and report given in Annex A.

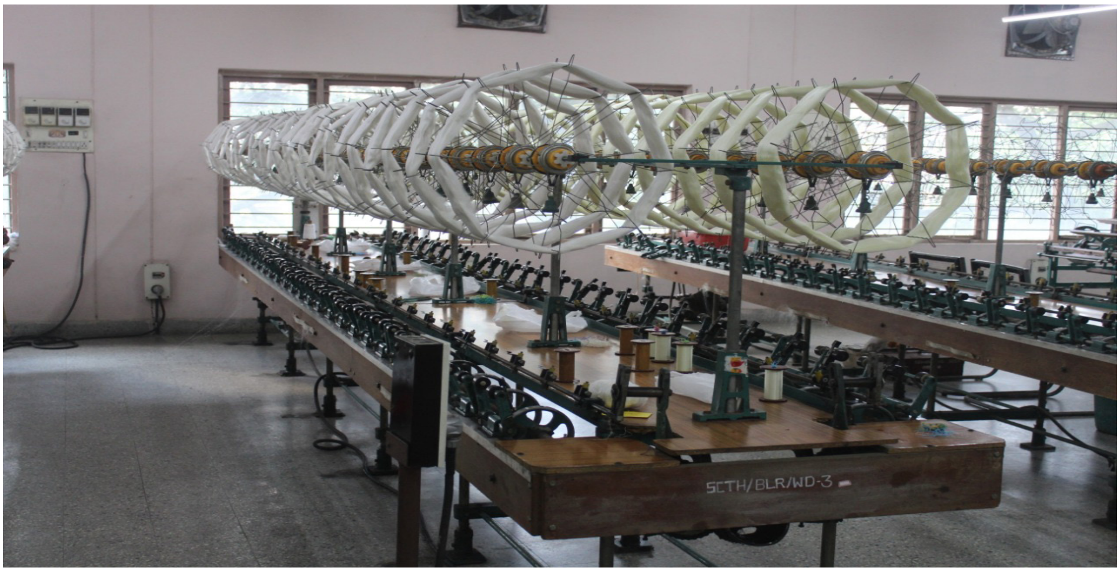

FIG. 1 WINDING FRAME

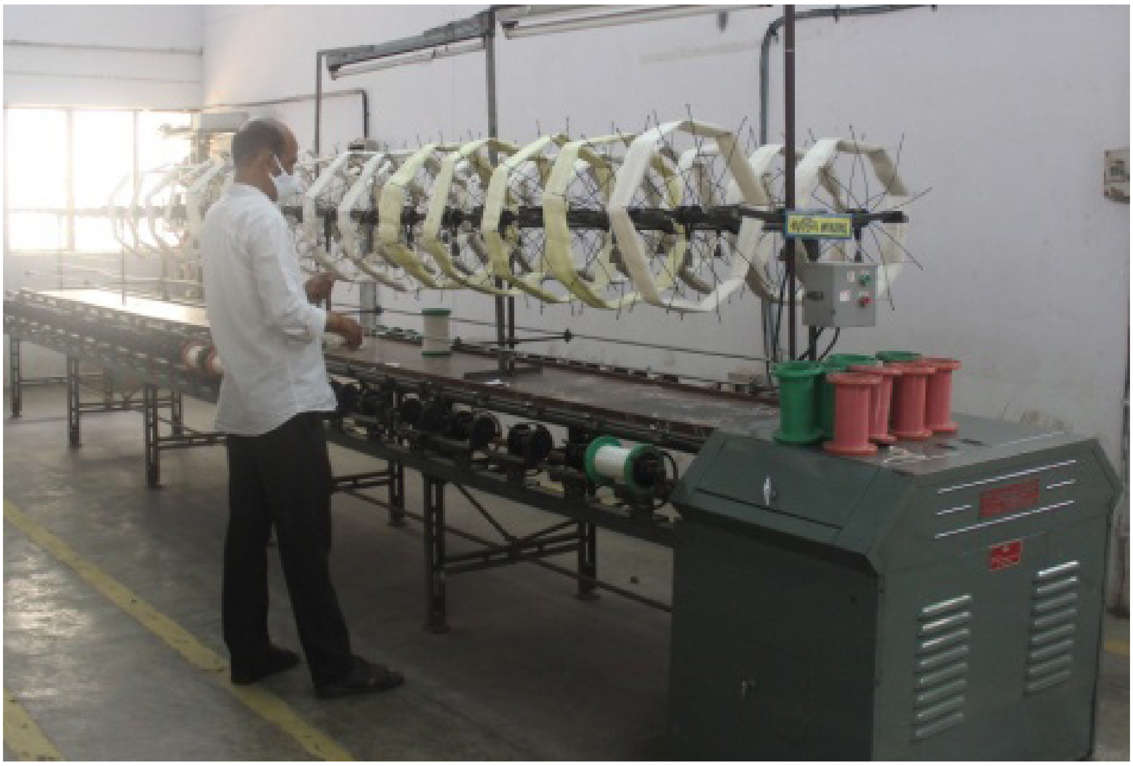

FIG. 2 WINDING FRAME

ANNEX A

(*Clause* 9)

RECORD AND REPORT OF WINDING TEST OF TASAR RAW SILK

[Conducted in accordance with IS 17618 (Part 3),
Tasar raw silk — Grading and methods of tests: Part 3 Winding test]

Name of test house :________________

Mark of the lot/chop/brand :________________

Serial No. of bales in the lot :_________________________

Starting time :________________ Nominal denier of lot :__________________

Ending time :________________ Speed of winding (m/min) : _____________

Total Time :________________

Skein no.	Breaks in preliminary winding	Breaks during winding
1		
2		
3		
4		
5		
Total		

Breaks per 5 skeins per 30 min: ______________________

Date:___________ Signature of tester

ANNEX B

(*Foreword*)

COMMITTEE COMPOSITION

Silk and Silk Products Sectional Committee, TXD 28

Organization	*Representative(s)*
Central Silk Board, Bengaluru	Dr S. V. Naik Director CSTRI (***Chairman***)
Association of Corporations and Apex Societies of Handlooms, New Delhi	Shri Abdul Rehman
Central Silk Technological Research Institute, Bengaluru	Director CSTRI
Chamundi Textiles (Silk Mills) Limited, Bengaluru	Shri A. L. Muthiah
Directorate of Handlooms and Textiles Govt of Tamilnadu, Chennai	Thiru C. Munianathan Dr K. Karnan (*Alternate*)
Himatsingka Seide Limited, Bengaluru	Shri Mohan Rao Shri S. A. Vishvanath (*Alternate*)
Indian Silk Export Promotion Council, Mumbai	Shri Dinesh Sharma
Jaipuria Silk Mills, Bengaluru	Shri Vikram Jaipuria
Karnataka Handloom Development Corporation Limited, Bengaluru	Shri P. Chandrashekhar Shri P. Manjunath (*Alternate*)
Karnataka Silk Industries Corporation, Bengaluru	Shri Siddalinga Prasad S. G. Shri D. S. Sangam (*Alternate*)
Karnataka State Sericulture Development Institute, Bengaluru	Shri V. H. Maharaddi Shri A. Jambunath (*Alternate*)
Khadi and Village Industries Commission, Mumbai	Shri D. Dhanpal Shri J. K. Gupta (*Alternate*)
National Handloom Development Corp Ltd, Lucknow	Shri Sakthivel Perumalsamy Shri Jitendra Tolambiya (*Alternate*)
Office of the Development Commissioner For Handlooms, New Delhi	Principal IIHT Salem
Office of Director of Handlooms and Textiles, Govt of Karnataka, Bengaluru	Jt Director (Textiles) Dy Director (Handlooms) (*Alternate*)
Office of the Textile Commissioner, Mumbai	Shri N. K. Gupta Shri Pranav Parasher (*Alternate*)
R A Silks, Janagaon, Telangana	Shri Ravinder Peddi Shri Sharath Peddi (*Alternate*)
Shri Ram Institute for Industrial Research, Delhi	Ms Neena Sehgal Dr R. K. Raina (*Alternate*)
Silk Mark Organization of India, New Delhi/Bangalore	Shri Shiv Govind Shri Jawahar Raina (*Alternate*)
Textiles Committee, Mumbai	Shri Kartikay Dhanda Shri P. Ravichandran (*Alternate*)

Organization	*Representative(s)*
The Bombay Textile Research Association, Mumbai	MS SHITAL PALASKAR SHRI AMOL THITE (*Alternate*)
The Tamilnadu Handloom Weavers', Coop Society Ltd, Chennai	SHRI G. GUNASEKARAN SHRI ALOK BABELAY (*Alternate*)
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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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